



## **Munitions lab scientist garners Air Force award**

*by Rex Swenson, Munitions Directorate*

*EGLIN AFB, Fla.* — Air Force Research Laboratory Munitions Directorate scientist, Dr. Bryan Milligan, was recently selected as the Air Force Science and Engineering Award winner in the area of Engineering Achievement for 2000.

Munitions Directorate Director Col. Tom Masiello said, "Winning this prestigious award is testimony to Dr. Milligan's hard work and technical expertise and reflects on the quality of work performed by MN as a whole."

As an internationally recognized leader in penetrating weapon design and analysis, Milligan has been instrumental in the Block II upgrade program of the Conventional Air-Launched Cruise Missile (CALCM) to add a precision strike capability against hardened targets. Milligan applied his expert knowledge to successfully evaluate the systems and provide design modification recommendations that were critical to improving system performance.

Early in the evaluation of these systems, Milligan recognized that available analytical tools lacked the ability to adequately address performance of the system. Through in-house experimentation, high-fidelity computational analysis, and contracted engineering model development, Milligan led the effort to produce an engineering model that supported Air Combat Command requirements.

The engineering model developed by Milligan led to the successful completion of this one-of-a-kind project through the unique calculations obtained. The effort represents a high-water mark for analytical complexity for the AFRL Munitions Directorate.

Milligan's achievement improved the CALCM system design at no additional cost to the overall program, and the success of the effort resulted in Milligan's team being approached by military agencies and defense contractors with requests to support upcoming system analyses. Milligan said, "This was very much a team effort." According to Milligan, personnel from the Directorate's experimental facilities were instrumental in collecting the initial data, and, during the final computational work, the staff of Eglin's High Performance Computing Center provided critical support to keep the project on schedule.

According to Munitions Directorate associate director for weapons, Steve Korn, Milligan has recently been selected as the Ordnance Integration Branch Chief. "Bryan is one of the outstanding employees hired through the 'Palace Knight' program and is an excellent example of a person who can blend in-depth technical expertise with sound management techniques," Korn said. @